

I claim:

1. A multi-lamp drive device connected with a power source for driving at least a lamp, comprising:

a drive circuit comprising a pulse width modulation controller for outputting a modulation signal and a converter connected with said pulse width modulation controller and used for outputting an excitation power source based on said power source;

a transformer comprising a magnetic core, a primary coil and a secondary coil, said magnetic core having a first side column, a second side column and at least a central column between said first and second side columns, said primary coil being wound around said first side column and electrically coupled with said excitation power source, said secondary coil being wound around said second side column and electrically coupled with one end of at least a ballast component, the other end of said ballast component being connected to a first end of at least a balanced inductor; and

at least a lamp whose one end is connected to a second end of said balanced inductor and whose other end is connected to said drive circuit.

2. The multi-lamp drive device as claimed in claim 1, wherein said lamp is a cold cathode fluorescent lamp.

3. The multi-lamp drive device as claimed in claim 1, wherein said ballast component is a capacitor having a relatively higher impedance.

4. The multi-lamp drive device as claimed in claim 1, wherein said balanced inductor is a winding coil of a balanced transformer.

5. A multi-lamp drive device connected with a power source for driving at least a lamp, comprising:

a drive circuit comprising a pulse width modulation controller for outputting a modulation signal and a converter connected with said pulse width modulation controller and used for outputting an excitation power source based on said power source;

5 a transformer comprising a magnetic core, a primary coil and a secondary coil, said magnetic core having a first side column, a second side column and at least a central column between said first and second side columns, said primary coil being wound around said first side column and electrically coupled with said excitation power source, said secondary coil being wound
10 around said second side column and electrically coupled with one end of at least a ballast component, the other end of said ballast component being connected to a first end of at least a lamp; and

at least a balanced inductor whose one end is connected to a second end of said lamp and whose other end is connected to said drive circuit.

15 6. The multi-lamp drive device as claimed in claim 5, wherein said lamp is a cold cathode fluorescent lamp.

7. The multi-lamp drive device as claimed in claim 5, wherein said ballast component is a capacitor having a relatively higher impedance.

20 8. The multi-lamp drive device as claimed in claim 5, wherein said balanced inductor is a winding coil of a balanced transformer.

9. A multi-lamp drive device connected with a power source for driving at least a lamp, comprising:

a drive circuit comprising a pulse width modulation controller for outputting a modulation signal and a converter connected with said pulse width
25 modulation controller and used for outputting an excitation power source

based on said power source;

a transformer comprising a magnetic core, a primary coil and a secondary coil, said magnetic core having a first side column, a second side column and at least a central column between said first and second side columns, said primary coil being wound around said first side column and electrically coupled with said excitation power source, said secondary coil being wound around said second side column, one end of said secondary coil being electrically coupled with one end of at least a ballast component, the other end of said secondary coil being grounded, the other end of said ballast component being connected to a first end of at least a lamp; and at least a balanced inductor whose one end is connected to a second end of said lamp and whose other end is connected to said drive circuit.

10. The multi-lamp drive device as claimed in claim 9, wherein said lamp is a cold cathode fluorescent lamp.

11. The multi-lamp drive device as claimed in claim 9, wherein said ballast component is a capacitor having a relatively higher impedance.

12. The multi-lamp drive device as claimed in claim 9, wherein said balanced inductor is a winding coil of a balanced transformer.

13. A multi-lamp drive device connected with a power source for driving at least a lamp, comprising:

a drive circuit comprising a pulse width modulation controller for outputting a modulation signal and a converter connected with said pulse width modulation controller and used for outputting an excitation power source based on said power source;

a transformer comprising a magnetic core, a primary coil and a secondary

coil, said magnetic core having a first side column, a second side column and at least a central column between said first and second side columns, said primary coil being wound around said first side column and electrically coupled with said excitation power source, said secondary coil being wound
5 around said second side column, one end of said secondary coil being electrically coupled with one end of at least a ballast component, the other end of said secondary coil being grounded, the other end of said ballast component being connected to a first end of at least a balanced inductor; and at least a lamp whose one end is connected to a second end of said balanced
10 inductor and whose other end is connected to said drive circuit.

14. The multi-lamp drive device as claimed in claim 13, wherein said lamp is a cold cathode fluorescent lamp.

15. The multi-lamp drive device as claimed in claim 13, wherein said ballast component is a capacitor having a relatively higher impedance.

15 16. The multi-lamp drive device as claimed in claim 13, wherein said balanced inductor is a winding coil of a balanced transformer.

17. A transformer of a multi-lamp drive device, comprising:

a magnetic core having a first side column, a second side column and at least a central column between said first and second side columns;

20 a primary coil wound around said first side column and electrically coupled with an excitation power source; and

a secondary coil wound around said second side column and electrically coupled with one end of at least a lamp.

18. The transformer of a multi-lamp drive device as claimed in claim 17,
25 wherein said magnetic core is composed of two E-shaped magnetic cores.

19. The transformer of a multi-lamp drive device as claimed in claim 17,
wherein said magnetic core is composed of an E-shaped magnetic core and
an I-shaped magnetic core.

20. The transformer of a multi-lamp drive device as claimed in claim 17,
5 wherein said magnetic core is composed of two inverse U-shaped magnetic
cores and two L-shaped magnetic cores.